

NEW AND NOTEWORTHY POLYPETALAE FROM BRITISH GUIANA

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THE following descriptions, new combinations, and notes are based on material of Polypetalae collection recently in British Guiana, the specimens, unless otherwise stated, being deposited in the herbarium of the Royal Botanic Gardens, Kew.

DILLENiaceae

Doliocarpus (Subgen. *Calinea*, Sect. *Eudoliocarpus*) **savannarum** sp. nov.

Ob habitum humilem, folia, flores subsessiles, ovarium dense pilosum valde distincta; a *D. virgato* Sagot e descriptione forsan affini foliorum paginae inferioris indumento debiliter piloso nec tomentoso-puberulo, nervis lateralibus semper paucioribus statim distinguitur.

Frutex humilis, erectus vel procumbens, haud scandens; ramuli subteretes, 3–6 mm. diametro, apicem versus foliiferi ac ibi adpresse pilosi, novelli fere subsericei. *Stipulae* lanceolatae vel lanceolato-oblongae, obtusae, 1 cm. longae, basi ad 5 mm. latae, adpresse pilosae. *Folia* elliptica vel elliptico-oblonga vel oblonga, apice breviter late cuspidato-acuminata, basi cuneata vel maxima obtusa subrotundata, 6–19 cm. longa, 2.5–9.2 cm. lata, valde coriacea, siccitate brunnea vel olivaceo-brunnea, subintegra sed dimidio superiore ob nervos laterales excurrentes distincte denticulata, subtus plus minusve nitidula, supra glabra, subtus secus costam nervosque laterales pilis debilibus satis sparse sed distincte induta ceterum glabra, costa nervisque primariis utroque latere 9–11 sursum arcuatis supra canaliculato-impressis subtus prominentibus, venis subhorizontaliter abeuntibus cum venulis intricate reticulatis omnibus supra vix prominulis sed obviis subtus prominentibus; petiolus adpresse pilosus vel glabrescens, supra canaliculatus subalatus, 1–3 cm. longus, ad 3 mm. crassus. *Flores* in fasciculos plerumque sub foliis dispositi, fere sessiles, pedicellis pubescentibus vix ad 1.5 mm. longis. *Sepala* orbiculari-ovata, apice rotundata, concava, 4.5–5 mm. longa, 3.5–4.2 mm. lata, extra pubescentia, intus glabra. *Petala* obovata, ad 6 mm. longa, ad 3.2 mm. lata. *Stamina* filamentis ad 5 mm. longis apice in connectivum dilatatis; antherarum loculi 0.5 mm. longi. *Ovarium* late ovoideo-subglobosum, dense pilosum; stylus ad 2.5 mm. longus, sparsius pilosus, stigmate peltato. *Fructus* kermesinus, globosus, 8–10 mm. diametro, satis sparse pubescens vel glabrescens, stylo persistente pubescente coronatus.

BRITISH GUIANA: Kaieteur Savannah, c. 400 m., fl. Sept.-Oct. 1881, *Jenman 1038* (TYPUS); *ibid.*, fr. Sept. 5, 1937, *Sandwith 1377*. Noted by Jenman as 3–5 ft. high, with erect growth, and by Sandwith as a trailing shrub with crimson berries, growing on sandy bushy ground.

Doliocarpus virgatus Sagot, which was based on imperfect material collected in French Guiana by Perrottet and Mélinon, was described by its author as having *inter alia*: “rami lignosi, validi, recti, virgati. Folia . . . superne glabrescentia, inferne breviter tomentoso-puberula. Nervi lat-

erales, recti, numerosi." The specimens were said to be easily recognizable on account of the peculiar facies. M. Raymond Benoist, in a review of the Dilleniaceae of French Guiana in Bull. Soc. Bot. Fr. IV. **13**: 400-401. 1913, slightly amplified the description of *D. virgatus*, to which he referred an additional flowering collection from Pará, remarking that the latter bore fully expanded flowers, whereas the collections from French Guiana were in young fruit, so that it was impossible to be certain whether the stamens were folded back or erect in the bud-stage. On this account he still treated *D. virgatus* as an *espèce à caractères insuffisamment connus*, and did not place it in either Section *Othlis* or Section *Calinea*. The important points to be noted in Benoist's amplified description are the pubescent lower surface of the leaves and the 12-17 pairs of main lateral nerves, characters which sufficiently distinguish *D. virgatus* from the plant of the Kaieteur Savannah.

More recently, mention has been made of *D. virgatus* as an ally, in Section *Eudoliocarpus* of Subgen. *Calinea*, of *D. paraënsis* Sleumer in Rep. Sp. Nov. **39**: 45-46. 1935. The latter species evidently differs from *D. savannarum* in the short (6-10 mm.) petiole, the quite glabrous leaves with 7 pairs of main lateral nerves and the reticulation obscure on the lower surface, the glabrous oblong sepals, and the much larger (about 1 cm. \times 6-8 mm.) petals.

FLACOURTIACEAE

Ryania pyrifera (L. C. Rich.) Uitt. & Sleumer var. **subuliflora** var. nov.

A planta typica sepalis angustioribus lineari-lanceolatis plerumque longioribus sursum saepius sensim longe attenuatis 2-4 cm. longis 3-8 mm. latis differt. *Folia* subtus secus costam nervosque primarios stellato-pubescentia, ceterum glabrescentia vel glabra.

BRITISH GUIANA: Essequibo River, in wallaba forest, Labbakbra Creek, Tiger Creek, August 26, 1937, *Sandwith 1211* (TYPE); Demerara River, May 1889, *Jenman 4853*; Mazaruni-Kuribrong Divide, in wallaba forest, *Forest Dept. 893*; Bartica-Potaro road, 83rd milepost, in clump wallaba bush, June 1933, *Tutin 216* (Herb. Mus. Brit. and Kew).

A small tree of the lowest storey of the forests of the white sand areas, especially in wallaba forest, up to 20 ft. high, less than 1 inch in diameter; sepals pale greenish white; filaments white, pinkish or red at the base.

This has been written up and distributed as a new species under the name adopted here for the lower rank; the writer is convinced that it does not deserve a higher status on account of the variability in the shape and dimensions of the sepals which can be seen on a really extensive gathering from a single tree. In Trinidad, where typical *R. pyrifera* is plentiful, specimens have been collected (*Fendler 203*, *Broadway 9358*) on which some of the sepals match some of those on the type collection of var. *subuliflora*.

Ryania pyrifera var. **tomentosa** (Miq.) Sleumer ex Sleumer & Uitt. in Pulle, Fl. Suriname **3**: 286. 1935.

This variety, with leaves densely stellate-pubescent or tomentose all over the lower surface, is known in British Guiana from the following collections: Berbice River, *Forest Dept. 774*; Demerara River, *Jenman 3888*, *Persaud*

174, *Forest Dept.* 774, 2452; Pomeroon District, Tapakooma Creek, *Jenman* 6616. This, from the evidence of field notes, is an undergrowth tree of brown sand areas, while the color of the flower is similar to that of var. *subuliflora*.

Ryania Sagotiana Eichl. in Mart. Fl. Bras. **13**(1): 491. 1871; Sleumer & Uitt. in Pulle, Fl. Suriname **3**: 287. 1935.

This species, which has strongly prominulous ultimate veinlets on the lower surface of the leaves and, above all, a conspicuously raised disk and a long stipe to the ovary, has been twice collected in British Guiana: Buruma Creek, Kibilibiri Creek, Berbice River, 1919, *Forest Dept.* 774A; Upper Demerara River, Sept. 1887, *Jenman* 4098. This, again, is a shrub or small tree.

GUTTIFERAE

Caraipa simplicior sp. nov.

Inter species foliis inflorescentiisque pubescentibus praeditas ob inflorescentias axillares atque terminales valde abbreviatas reductas, scilicet cymas plerumque 1-3-floras gerentes, praeterea ob sepala magna singularis, *C. grandifoliae* Mart. forsan affinis sed forma inflorescentiae praeterea foliis petalisque minoribus distinguitur.

Arbor satis grandis, 27 m. alta; ramuli angulati superne furfuraceo-tomentelli. *Folia* lanceolata vel anguste elliptico-oblonga, apice acuta, obtusa vel brevissime cuspidata, basi cuneata sed saepe obtusa vel fere rotundata tum abrupte in petiolum decurrentia, 3.5-11 cm. longa, 1.3-4.3 cm. lata, illa inflorescentias subtendentia sensim reducta, coriacea, marginibus revolutis ac apice saepe recurvato fissoque, supra subopaca minute haud dense sed regulariter stellato-puberula, subtus plus minusve incana indumento lepidiformi arcte minute stellato-tomentella, costa nervisque supra canaliculato-impressis subtus (costa valde) prominentibus, nervis primariis utroque costae latere 16-20 patulo-adscendentibus subrectis sed marginem versus sursum arcuatis, nervis secundariis crebris supra impressis haud obviis subtus manifestis sed inconspicuis; petiolus 4-10 mm. longus. *Inflorescentiae* e cymis axillaribus atque terminalibus plerumque simplicibus 1-3-floris rarius compositis 4-floris brevipedunculatis ad 2.5 cm. longis ubique praesertim sepalis ferrugineo-stellato-tomentellis constantes; bracteae conspicuae, ovatae vel ovato-oblongae, 5-10 mm. longae, ad 3.5 mm. latae, nonnunquam majores foliaceae; bracteolae similes sed paulo minores; pedicelli 3-5 mm. longi rigidi. *Sepala* basi tantum connata, late ovata, apice obtusa, basi rotundata, 5.5-6 mm. longa, 5 mm. lata, nonnunquam extra plus minusve carinata, utrinque stellato-tomentella. *Petala* obovata, unilateraliter in appendicem latam membranaceam producta, hac inclusa 1.4-1.5 cm. longa, 0.6-0.8 cm. lata, partibus crassioribus utrinque dense stellato-puberulis partibus membranaceis glabris ciliatis. *Stamina* longiora ad 7 mm. longa; antherae forma generis propria obovato-rhomboidea, circiter 0.75 mm. longae atque latae. *Ovarium* pluricostatum, 2.75 mm. diametro, stellato-tomentellum; stylus glaber, 3.5 mm. longus, clavatus, apicem versus sensim incrassatus. *Fructus* non visus.

BRITISH GUIANA-VENEZUELA BOUNDARY REGION: Roraima, slopes near Arabupu, in swampy soil in mixed forest, 1380 m., Dec. 15, 1938, *Forest Dept.* 2823 (field no. P. 51) (TYPE); tree 90 ft. high, 12 in. diam., with scaly bark like that of Sawarri (*Caryocar nuciferum*); fls. white, cup-shaped; calyx green; petals buff; stamens white.

This species somewhat resembles *C. minor* Huber and *C. parvifolia* Aubl. in its leaves. *Caraipa minor*, however, has the leaves densely pilosulous beneath with simple hairs, while its sepals are connate for at least half their length. *Caraipa parvifolia* Aubl., the type of which consists of leaves and branchlets alone, has relatively shorter petioles and, if other French Guiana sheets are correctly identified with it, a terminal compound inflorescence with small sepals (see Jour. Bot. **80**: 53. 1942).

MALPIGHIACEAE

Byrsonima incarnata sp. nov.; Subgen. *Macrozeugma*, Sect. *Colobotheca*, Subsect. *Atrichotheca*, seriei *Stenolepis*, ex clavi cl. Niedenzu in Engler, Pflanzenreich 94 (IV. **141**). 1928.

Ut videtur juxta *B. perseifoliam* Griseb. atque *B. frondosam* Mart. ex Juss. ponenda, ab utraque ovario tomentoso, praeterea ab illa antherae connectivi appendicula loculos longe superante, ab hac foliis majoribus senectute tantum fere glabris statim distinguitur; revera, ut videtur, *B. Schomburgkianae* Benth. magis affinis, a qua petiolis longioribus, bracteolis ovatis, antherae loculis glabris, ovario tomentoso distinguitur.

Arbor parva vix mediocris, circiter 13 m. alta, ramulis summis teretibus hornotinis dense adpresse ferrugineo-pilosis. *Stipulae* ovatae, obtusae, 4.5–6.5 mm. longae, extra indumento ramulorum indutae. *Folia* obovata, obovato-elliptica vel elliptica, apice rotundata brevissime cuspidata vel in exemplis maximis ellipticis magis attenuata ac acuminata, basi in petiolum attenuata cuneata, 11–26 cm. longa, 5.4–10.5 cm. lata, satis tenuiter coriacea, supra siccitate brunneo-nigrescentia nitidula subtus pallidiora, supra sparse cinereo-pubescentia vel plus minusve glabra subtus juventute satis copiose pubescentia demum fere glabra, costa nervisque primariis supra prominulis subtus prominentibus, nervis primariis utroque costae latere 12–18 patulis vel patulo-ascendentibus et satis longe a margine anastomosantibus, nervis secundariis supra inconspicuis vel impressis subtus venuliscum planis vel tenuiter prominulis satis conspicuis; petiolus indumento ramulorum praeditus, demum glabrescens, 1–2.5 cm. longus. *Racemi* 10–18 cm. longi; rhachis angulata, satis dense subadpresse pallide ferrugineo-pilosa, nisi basim versus densiflora; bractee anguste lanceolato-oblongae, obtusae, 5–7 mm. longae, basi ad 2 mm. latae, patulae vel patentis et sursum incurvatae, demum deciduae, extra praesertim secus medium fere subsericeo-pubescentes; bracteolae dimidio breviores, ovatae, obtusae, extra pubescentes; pedicelli villosulo-ferrugineo-tomentosi, 5–9 mm. longi. *Alabastra* carnea. *Sepala* glandulas roseo-carneas 2.5–3 mm. longas siccitate albo-flavescentes gerentia; lamina deltoideo-ovata, obtusa, 2.5–3.5 mm. longa, 2.5 mm. lata, utrinque pubescenti-tomentosa. *Petala* alba roseo-suffusa, vel pallide rosea, ungue 3–3.5 mm. longo, lamina orbiculari-cordata vel (in petalis minoribus) reniformi-orbiculari, 5.5–8 mm. longa, 6.5–8 mm. lata. *Torus* pilosus. *Stamina* glabra, filamentis brevissimis antherae subaequilatis circiter 0.5 mm. longis; antherae connectivo incluso 2–2.6 mm. longae, loculis brevibus obscuris circiter 1 mm. longis lineari-oblongis glabris apice obtusis rotundatis neque mucronatis nec aristatis, connectivi appendicula valde evoluta crassa oblonga vel conoidea obtusa glabra usque ad 1 mm. lata loculos longe plus quam duplo superante. *Ovarium* ovoideum, dense tomentosum, 2 mm. longum, 1.75 mm. diametro; styli glabri, fere 2 mm. longi. *Fructus* non visus.

BRITISH GUIANA: Moraballi Creek, Essequibo River, in greenheart forest on brown loam, Oct. 13, 1938, *Fanshawe* in *Forest Dept.* 2737 (TYPE); Bartica-Potaro road, near 14th milepost, in wallaba forest on white sand, Aug. 19, 1937, *Sandwith* 1145. Each of the trees from which these collections were made was about 50 ft. high and 4 inches in diameter. The calyx is pale olive or brown, with waxy vermilion glands, while the petals are pale pink or white with a tinge of pink.

The fact that this tree is almost certainly an ally of *B. Schomburgkiana*, a savannah species with hairy anther-loculi in Niedenzu's Subsect. *Dasytheca* of the Subgenus *Macrozeugma*, shows that this author's choice of characters in the anthers for constituting major divisions of his key results in an artificial arrangement which separates species naturally allied.

The addition of this species and of *B. Poeppigiana* Juss. (see *Kew Bull.* 1937: 102. 1937, and *Lloydia* 2: 188. 1939) brings the number of species of *Byrsonima* known to occur in the Colony up to fourteen. The key offered by the writer in *Kew Bull.* 1935: 314-315. 1935 must now be emended for the inclusion of these two species, as follows:

Anther loculi not horned:

Mature leaves glabrous or nearly so; petals white to deep rose:

Leaves subsessile, rounded and more or less cordate at the base, obtuse, rounded or emarginate at the apex. *B. coccolobifolia*.

Leaves distinctly petiolate, attenuate and cuneate at the base:

Leaves commonly or always exceeding 9 cm. in length; bracts linear to narrowly oblong-lanceolate:

Petioles less than 1 cm. long; bracteoles linear-oblong; anther loculi pilosulous. *B. Schomburgkiana*.

Petioles 1 cm. or more long; bracteoles ovate; anther loculi glabrous. *B. incarnata*.

Leaves usually less than 9 cm. long; bracts ovate or ovate-lanceolate. *B. eugeniifolia*, *concinna* and *bracteolaris*.

Mature leaves not glabrous or, if nearly so, then petals yellow; petals bright yellow except in *B. chalchophylla*:

Bracts conspicuously curled backwards:

Leaves reddish rusty-tomentose beneath; petioles commonly more than 1.5 cm. long. *B. Aerugo*.

Leaves sparsely pubescent or glabrescent beneath; petioles rarely up to 1.5 cm. long. *B. Poeppigiana*.

Bracts not conspicuously curled backwards. *Species as in the previous key*.

Byrsonima Poeppigiana is a species of Amazonian Brazil and Peru which has recently been found as a small river-bank tree in the far interior of British Guiana, towards the Brazilian frontier.

Kostermans, in *Pulle*, *Fl. Suriname* 2: 243. 1936, and in his notes on the new and critical species of Surinam Malpighiaceae (in *Meded. Bot. Mus. en Herb. Utrecht* 25: 10-12. 1936), reduces Bentham's *B. rugosa* to *B. stipulacea* Juss., of which he regards it as merely a form with gland-bearing sepals.

Banisteriopsis elegans (Tr. & Pl.) comb. nov.

Banisteria elegans Tr. & Pl. in *Ann. Sci. Nat.* IV. 18: 322. 1862; Nied. in Engler, *Pflanzenreich* 93 (IV. 141): 412. 1928.

Banisteriopsis elegans subsp. **cordata** (Nied.) comb. nov.

Banisteria elegans subsp. *cordata* Nied. in *Verz. Vorles. Ak. Braunsberg W.-S.* 1912-1913: 10. 1912, in Engler, *Pflanzenreich* 93 (IV. 141): 413. 1928.

Banisteriopsis elegans subsp. **cordata** var. **ciliata** (Nied.) comb. nov.

Banisteria elegans subsp. *cordata* var. *ciliata* Nied. in Verz. Vorles. Ak. Braunschweig W.-S. 1912-1913: 10. 1912, in Engler, Pflanzenreich 93 (IV. 141): 413. 1928.

Banisteriopsis elegans subsp. **cordata** var. **pulcherrima** var. nov.

Var. *ciliatae* (Nied.) Sandwith affinis foliis magis coriaceis basi profundius eximie auriculato-cordatis, bracteis inflorescentiae irregulariter longius fimbriatis apice nonnunquam pectinatis fimbriis nonnullis ad 4 mm. longis, floribus speciosioribus differt.

BRITISH GUIANA: Kaieteur Savannah, c. 400 m., fl. and fr. Sept. 8, 1937, *Sandwith 1430* (TYPUS); *ibid.*, Sept.-Oct. 1881, *Jenman 1256*; *ibid.*, Aug. 1933, *Tutin 694* (Herb. Mus. Brit. and Kew); *ibid.*, Feb. 20, 1939, *Sir Geoffrey Evans 12*; Membaro Creek, Mazaruni River, Feb. 14, 1939, *Forest Dept. 2845* (field no. *P. 73*); Roraima, "Our House," Dec. 10, 1884, *im Thurn 136*, Sets A and C.

This is one of the most beautiful of all the remarkable plants found on the hard sandstone conglomerate of the Kaieteur Savannah. It is a shrub trailing over bushes and small trees to a length of some 12 feet. The flowers are borne in showy lax sprays and simulate those of a species of *Oncidium*. They are at least 2.5 cm. across, conspicuously zygomorphic, with bright yellow fringed petals, the anterior one striped with crimson veins in the lower half, and white stigmas. The peculiar long cilia of the bracts of the inflorescence are crimson. The fruiting thyrse is scarcely less attractive than the flowering sprays, since the large wings of the samaras are pink.

It is by no means certain that this beautiful plant, with its very definite range which is shared by so many others, does not deserve a higher rank than is proposed for it; but this could not satisfactorily be accorded without a thorough review of Niedenzu's treatment of the aggregate species *B. elegans*, and insufficient material has so far been accumulated for this purpose from other parts of the range. Moreover, there is the further question of the relationship of *B. elegans* with *B. leptocarpa* (Benth.) R. O. Williams, to which Kostermans has recently reduced its subsp. *cordata* var. *ciliata* (see his notes on new and critical species of Surinam Malpighiaceae, in Meded. Bot. Mus. en Herb. Utrecht 25: 8. 1936). If this reduction be correct, then the case for raising this new var. *pulcherrima* to specific rank becomes stronger, since *B. leptocarpa*, which is a very common species in British Guiana and occurs with var. *pulcherrima* on the Kaieteur Savannah, is remarkably distinct from it in the field, having a much denser more complex inflorescence, with smaller flowers and rather pale yellow petals. But the writer is by no means convinced that the type collection of *B. elegans* subsp. *cordata* var. *ciliata*, viz. *H. H. Smith 1509* from Santa Marta, Colombia, should be so summarily reduced to *B. leptocarpa*, since it does not show this characteristic inflorescence.

RUTACEAE

Rhabdodendron amazonicum (Benth.) Huber in Bol. Mus. Goeldi 5: 427. 1909; Ducke in Arch. Jard. Bot. Rio 3: 181. 1922.

In the opinion of the writer, *Lecostemon sylvestre* Gleason (in Bull. Torrey Club 54: 608. 1927) cannot be separated from *Rhabdodendron*

amazonicum, a frequent small tree of campos and campinas in Amazonian Brazil. The variability of that species was discussed by Ducke in 1922 and is apparent in several British Guiana collections, especially in the size, the texture, and the prominence of the venation of the leaves, the angle taken by their lateral nerves, the degree of pubescence on the inflorescence, and the length of the pedicels. In British Guiana this species occurs as a small to medium-sized tree, on white or dark brown sand. The following collections are in the Kew Herbarium.

BRITISH GUIANA: Hill slope on brown sand, Warunana Creek, Ituni River, Berbice River, *Forest Dept.* 450; slope on white sand, Kuruabaru River, Demerara River, *Forest Dept.* 450A; in wallaba forest, Moraballi Creek, Essequibo River, *Forest Dept.* 2747; common in "clump wallaba" (*Dicymbe corymbosa*) bush, 83 miles along Bartica-Potaro road, *Tutin* 243 (Herb. Mus. Brit. and Kew); in forest on white sand between Kangaruma and Garraway Stream, Potaro River, *Sandwith* 1237; in dense forest between Kangaruma and Potaro Landing, *Gleason* 211 (type coll. of *Lecostemon sylvestre*). *Forest Dept.* 2747 (Moraballi Creek) was taken from a tree 60 ft. high and 12 inches in diameter; the other collections were all from small trees of the undergrowth.

The genus *Rhabdodendron* Gilg & Pilger and the question of its identity with *Lecostemon* DC. were fully discussed by Huber in *Bol. Mus. Goeldi* 5: 424-431. 1909, where a new tribe in Rutaceae was proposed for *Rhabdodendron*.

Rhabdodendron Gardnerianum (Benth.) comb. nov.

Lecostemon Gardnerianum Benth. in Hook. Jour. Bot. & Kew Misc. 5: 295. 1853; Hook. f. in Mart. Fl. Bras. 14(2): 54. 1867; Huber in *Bol. Mus. Goeldi* 5: 427. 1909.

BRAZIL: Bahia: Banks of the Rio Preto, Sept. 1839, *Gardner* 2814, "a small tree 12-16 feet high." This locality lies in the northwestern corner of the modern State of Bahia; it was incorrectly placed by Bentham in the State of Piauhly, while in Gardner's day it apparently lay within the southwestern limits of that of Pernambuco (see Gardner's "Travels," ed. 1. 298, 309, and map).

Evidently a member of this genus, and strikingly distinct on account of the small leaves, but not included in the conspectus of *Rhabdodendron* given by Huber, and not mentioned by Engler in the latest treatment of Rutaceae in Engler & Prantl, *Nat. Pflanzenfam.* ed. 2. 19A: 358. 1931, where Huber's tribe Rhabdodendreae is accepted.

OCHNACEAE

Ouratea cataractarum sp. nov.

Inter congeneros forma foliorum inflorescentiaeque, pedicellis longis rectis valde distincta.

Frutex vel arbor parva, glabra, ramulis summis tenuibus 1.5-3 mm. diametro, internodiis brevibus. *Stipulae* lanceolatae, 3-5.5 mm. longae, longitudinaliter striatae. *Folia* anguste salicifolia, lineari-elliptica vel lineari-lanceolata vel anguste oblanceolata, in apicem acutum longe attenuata, nonnunquam acuminata, basi in petiolum longe acute attenuata atque decurrentia, 4.5-12.5 cm. longa, 0.7-2.2 cm. lata, basin versus integra superne tenuiter satis obscure (apicem versus conspicuius) obtuse serrulata, marginibus cartilagineis subrevolutis, coriacea, supra nitida, siccitate olivacea vel subtus brunnea, costa supra prominula subtus prominente, nervis venisque utrinque subaequaliter prominulis, nervis primariis utroque costae latere 6-8 primo sursum arcuatis tum praerupte ascendentibus et in mar-

ginem demum provectis, venulis subhorizontalibus crebris obviis; petiolus 4–8 mm. longus. *Inflorescentia* terminalis, erecta, paniculata, pyramidalis, 4–8 cm. longa, ad 10 cm. lata, ramis satis paucifloris patulis vel patulo-ascendentibus rectis angulatis inferioribus ad 4.5 cm. longis; bracteae bracteolaeque deciduae, haud visae; pedicelli ascendentes, recti, graciles, 1.2–1.9 cm. longi, superiores apice ramorum corymbos praebentes. *Alabastra* ovoideo-oblonga, obtusa, 6–7.5 mm. longa, ad 3.75 mm. diametro. *Sepala* flava, oblongo-lanceolata, obtusa, apice cucullata, 7–8 mm. longa, 2.5–3 mm. lata, concava, subcoriacea, longitudinaliter tenuiter striata, interiora marginibus late membranaceo-scariosis. *Petala* laete flava, obovato-spathulata, unguiculata, 8–9 mm. longa, 5.3–6.5 mm. lata. *Antherae* 6.3–7 mm. longae. *Torus* sub anthesi 0.8 mm. longus, sub carpidiis maturis turbinato-subglobosus 4 mm. longus 4.5 mm. latus. *Carpidia* 5, sub anthesi 0.8 mm. longa, matura (drupae) ellipsoidea vel obovoideo-ellipsoidea 8–8.5 mm. longa ad 5.5 mm. diametro.

BRITISH GUIANA: Potaro River, Amatuk portage, on rocks by the fall, fl. Aug. 31, 1937, *Sandwith* 1244 (TYPUS); Kaieteur Savannah, fl. et fr. Sept.-Oct. 1881, *Jenman* 890, 1213 (fr.), 1264. A shrub or small tree, with bright yellow sepals and petals.

This is a very pretty small tree, presumably to be classed as one of Dr. Van Steenis' "rheophytes" on account of the willow-like leaves and the habitat — see Bull. Jard. Bot. Buitenzorg III. **12**: 174–175. 1932. The same morphological adaptation is seen in the beautiful *Hirtella angustissima* Sandwith, which grows in the same locality at Amatuk and in many other spots along the banks of the Potaro.

Ouratea cernuiflora sp. nov.

Ob racemos axillares, flores nutantes cernuos, calycem omnino integrum coriaceum sub anthesi tantum ad basin in lobos 2–3 concavos fissum, scilicet sepalis omnino secum concretis nec etiamnunc alabastro singillatim distinguendis imbricatis postea sejunctis, peregregia, *O. vaccinioidi* (St. Hil. & Tul.) Engl. forsan affinis.

Frutex vel arbor parva, glabra, ramulis rigidis 2.5–5 mm. diametro densifoliatis internodiis brevibus. *Stipulae* lanceolatae, 10–11 mm. longae, longitudinaliter striatae. *Folia* elliptica vel obovato-elliptica, apice obtusa nonnunquam rotundata, summo apice ipso semper plus minusve levissime emarginato necnon decurvo pagina superiore concavo, basi attenuata cuneata ac in petiolum decurrentia, 2.5–10.5 cm. longa, 1–5 cm. lata, integra vel sub lente dimidio superiore obsolete remote undulato-serrulata, marginibus cartilagineis, utrinque plus minusve nitida, siccitate brunneo-olivacea, costa supra secus sulcum paginae tenuiter saepe acute prominula subtus prominente inferne lata obtusa superne angustata acutata, nervis venulisque supra immersis oculo vix vel haud distinguendis subtus nunc prominulis nunc primariis exceptis obscuris atque plus minusve immersis, primariis utroque costae latere circiter 8–10 primo arcuatis tum sursum (inferioribus longe, superioribus gradatim brevius) marginem versus prae-rupte ascendentibus, intermediis e costa exorientibus numerosis, venulis creberrimis subhorizontalibus parallelisque; petiolus supra canaliculatus, 2–10 mm. longus. *Inflorescentia* e racemis simplicibus ex axillis foliorum plane evolutorum exorientibus praeterea e panícula terminali racemiformi basi tantum breviter ramosa constans, axibus angulatis compressis ascendentibus; racemi 3–7.5 cm. longi, superne satis densiflori; bracteae bracteo-

laeque ovatae vel ovato-oblongae, obtusae, nonnunquam emarginatae, 1.5–3.75 mm. longae, ad 2 mm. latae, longitudinaliter striatae; pedicelli recurvi, 3–9 mm. longi. *Flores* cernui, nutantes, siccitate (etiam in vivo?) saepe secundi. *Alabastra* ovoidea, apice breviter acuminata vel obtusata, ad 6.5 mm. longa, ad 5 mm. diametro. *Calyx* egregius, omnino coriaceus, integer, sepalis secum omnino concretis haud singillatim distinguendis nec ut in ceteris speciebus visis distinctis atque marginibus scariosis imbricatis, sub anthesi ad basin in lobos 2 vel 3 valde concavos ovatos vel semicirculares obtusos rotundatos vel subacutos atque plus minusve apiculatos 6–7.5 mm. longos 5.5–8 mm. latos longitudinaliter striatos marginibus incrassatis fissus. *Petala* obovato-spathulata, elliptico-oblonga vel oblonga, apice acute erosa biloba, in basin latam attenuata, 7–10 mm. longa, 3.3–5.75 mm. lata. *Antherae* 4.3–6 mm. longae. *Torus* sub anthesi 0.8 mm. longus, sub carpidiis maturis turbinato-pulvinatus 2–4 mm. longus circiter 3.5 mm. latus. *Carpidia* 5, sub anthesi 0.8 mm. longa, matura obovoideo-subglobosa 5–7 mm. longa 4–5.5 mm. diametro.

BRITISH GUIANA: Kaieteur Savannah, Potaro River, fl. Sept.-Oct. 1881, *Jenman* 863, 1042 (TYPUS), 1210, "a spreading shrub or small tree, about 10 ft. high;" François Creek, Mahaicony River, Demerara Co., fr. March 1934, *Davis* in *Forest Dept.* 2367, "shrub 6–10 ft. high, abundant in scrub savannah, soil swampy with peaty humus overlying white sand. Peduncle, calyx and fruit deep red, seeds dark glossy greyish-green or pale yellow."

An outstanding species of *Ouratea* on account of the ascending axillary racemes with nodding flowers on recurved pedicels and the very peculiar calyx with completely fused and indistinguishable sepals, ruptured at the time of flowering into 2 or 3 concave coriaceous lobes. A tendency to a gradation towards this phenomenon can be observed in certain other species, for instance, on some specimens of *O. acuminata* (DC.) Engl., in which the inner sepals adhere so closely to the coriaceous outer members that their broadly scarious free margins cannot be separated and distinguished without dissection and examination of the inner side of the whole calyx.

A possible ally of this plant is *O. vaccinioides* (St. Hil. & Tul.) Engl., of the States of Bahia, Minas Geraes, and Rio de Janeiro, in Central Brazil; it has somewhat similar but uniformly small leaves, terminal panicles of nodding more or less secund flowers, and distinct sepals.

This is the second instance of a rare undescribed plant growing both on the British Guiana penepain, on the low-lying scrub savannah of the Mahaicony River, and on the Kaieteur Savannah at the edge of the Pakaraima escarpment; the previous example was the malpighiaceus *Byrsonima eugeniifolia* Sandwith.

Several other undescribed *Ourateae* from British Guiana are represented in the Kew Herbarium, but they are more critical than the two very distinct species described above, and a review of the members of the genus occurring in the Colony cannot be prepared without the examination of specimens and literature which are at present unavailable. The number of species of *Ouratea* found in British Guiana is probably not less than twenty.